POTAPOVA, T.V.; SVITSYN, R.A.; ZHIGACH, A.F.; LAPTEV, V.T.; PERSIANOVA, I.V.; SOROKIN, P.Z.

Effect of a carborane ring on the properties of some C-derivatives of the carborane (2, 10) series. Zhur. neorg. khim. 10 no.9:2080-2083 S '65. (MIRA 18:10)

D'YACHENKO, V.P., glav. red.; YEVSTAF'YEV, G.N., kand. ekon. nauk, red.; OBLOMSKIY, Ya.A., kand. ekon. nauk, red.; OSIPOV, G.V., kand. filosof. nauk, red.; LAPTEV, V.V., kand. yurid. nauk, red.; TEPFEROV, V.D., red. izd-va; ASTAF'YEVA, G.A., tekhn. red.

[Social and economic problems of technological progress] Sotsial'no-ekonomicheskie problemy tekhnicheskogo progressa; materialy nauchnoi sessii. Moskva, 1961. 478 p. (MIRA 14:8)

1. Akademiya nauk SSSR. Otdeleniye ekonomicheskikh, filosofskikh i pravovykh nauk. 2. Chlen-korrespondent AN SSSR (for D'yachenko)
(Technology and civilization)

TSLAV, L.Z.; LAPTEV, V.V.

Determining the oil-water saturation and position of the oil-water surface in carbonate reservoir rocks of fields in the Volga-Valley portion of Kuybyshev Province by combined radiometric methods. Geol. nefti i gaza 7 no.11:53-55 N '63. (MIRA 17:8)

1. Kuybyshevskiy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti.

BORTSOV, Yu.A.; LAPTEV, V.V.

Consideration of delay constant in the simulation of electronic
and ionic automatic control systems. Izv. vys. ucheb. zav.;
elektromekh. 7 no.6:757-759 '64. (MIRA 17:7)

LAPTEV, V.Ye.; KARPOV, V.G.

By-pass devices for low-pressure gate valves. Neft.khoz. 37 no.2:67-68 F '59. (MIRA 12:4)

(Valves)

LAPTEV, V.Ye.

Studying the performance of end sealings of centrifugal pumps.
Nevt. khoz. 38 no.7:61-65 Jl '60. (MIRA 14:10)
(Centrifugal pumps)

USATOV, I.A., kand. ekon. nauk; GUBIN, B.V., kand. ekon. nauk; SMIRNOV, A.D., dots.; IAPTEV, Ye.N.; MOZHIN, V.P., kand.ekon.nauk; GUMEROV, R.M.; KORYUNOV, S.N.; PSHENICHNYY, P.P.; MYAKOV, N.M.; FILATOV, N.L.; FILIPPOVA, E., red. izd-va; LEBEDEV, A., tekhn. red.

[Economics and finance of socialist enterprises]Ekonomika i finansy sotsialisticheskikh predpriiatii. Moskva, Gosfinizdat, 1962. 404 p. (MIRA 15:9)
(Industrial management) (Finance)

SHUMOV, N.S., kand.ekonom.nauk; ~~LAPTEV, Ye.N~~.; KAZANTSEV, A.I., kand. ekonom.nauk; ZUYEVA, Z.I.; KOCHEGAROVA, A.I.; SHRAYBER, I.I., kand.ekonom.nauk; TSAPIN, I.T.; KITAYGORODSKIY, I.P.; ZAVERNYAYEVA, L., red.; TELEGINA, T., tekhn.red.

[Payments in industry] Raschety v promyshlennosti. Moskva, Gosfinizdat, 1959. 125 p. (MIRA 12:11)

1. Moscow. Nauchno-issledovatel'skiy finansovyy institut. 2. Zaveduyushchiy otdeleniyem Nauchno-issledovatel'skogo finansovogo instituta Ministerstva finansov SSSR (for Shumov). 3. Starshiy ekonomist Nauchno-issledovatel'skogo finansovogo instituta Ministerstva finansov SSSR (for Laptev). 4. Nachal'nik upravleniya kreditovaniya promyshlennosti sovnarkhozov Pravleniya Gosbanka SSSR (for Kazantsev). 5. Nachal'nik planovo-ekonomicheskogo otdela Moskovskoy gorodskoy kontory Gosbanka (for Zuyev). 6. Ekonomist Moskovskoy gorodskoy kontory Gosbanka (for Kochegarova). 7. Zamestitel' nachal'nika planovo-ekonomicheskogo upravleniya Rossiyskoy respublikanskoy kontory Gosbanka (for Shrayber). 8. Glavnyy bukhgalter moskovskogo khlebozavoda No.4 (for TSapin). 9. Ekspert otdela kredita i denezhnogo obrashcheniya Ministerstva finansov SSSR (for Kitaygorodskiy).

(Payment)

LAPTEV, Yu. B.

Species of wheat in North and East Africa. Bot. zhur. 48 no.3:
429-430 Mr '63. (MIRA 16:4)

1. Vsesoyuznyy institut rasteniyevodstva, Leningrad.

(Africa—Wheat)

SOV/145-58-7/8-14/24

8 (3), 25 (1)

AUTHOR: Laptev, Yu.N., Senior Teacher

TITLE: Performance of Single-Stage Hydrodynamic Transformer with Hydraulic Clutch

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Mashinostroyeniye, 1958, Nr 7-8, pp 125-133 (USSR)

ABSTRACT: Assemblies comprising a hydrotransformer and a hydraulic clutch in one unit are used in order to increase the efficiency of transmitting mechanisms. When the gear ratio is small, efficiency of hydrotransformer is greater than that of the hydraulic clutch, but beginning from a certain gear ratio value, the efficiency of hydrotransformer quickly decreases while that of the hydraulic clutch increases (Fig 1). At the Stalingrad Mechanical Institute, research on problems connected with the performance of hydrotransformer with hydraulic clutch was carried out. During research, the following scientific works were considered: A.P. Kudryavtsev, "Designing, Building

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SOV/145-58-7/8-14/24

Performance of Single-Stage Hydrodynamic Transformer with Hydraulic Clutch

and Testing Hydraulic Turbo-Transmissions", Mashgiz, 1947 [1]; N.K. Kulikov, "Estimation of Single-Stage Hydrodynamic Transformer with Maximum Efficiency", published by the periodical "Avtomobil'naya i traktornaya promyshlennost'", Nr 3, 1953 [2]; I.F. Semichastnov, "Hydraulic Transmissions of Motor Locomotives", Mashgiz, 1957 [3]. In a Table on p 131, the author gives parameters of hydrotransformers installed on 4 makes of foreign and 3 makes of Soviet automobiles. The maximum efficiency of hydrotransformers working with a hydraulic clutch can be expressed by formula $\eta = 0.98 - 0.00688\delta - 0.01383\delta^2$. The value δ is determined by the expression

$$\delta = \frac{ctg\beta_{21} - ctg\beta_{12}}{f\psi_{22}^2}\left(1 + \frac{ctg\beta_{11} - ctg\beta_{22}}{ctg\beta_{31} - ctg\beta_{32}}\right),$$

where β_{n1} and β_{n2} are respective input and output angles ✓

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SOV/145-58-7/8-14/24

Performance of Single-Stage Hydrodynamic Transformer with Hydraulic Clutch

for the flow of liquid for corresponding wheel; the angles are measured between the relative and the transferable speed; ψ_{n2} - coefficient of the output radius; f - coefficient of the live section flow surface. There are 2 graphs, 1 table, 3 figures and 7 Soviet references.

ASSOCIATION: Stalingradskiy mekhanicheskiy institut (Stalingrad Mechanical Institute)

SUBMITTED: May 8, 1958

✓

Card 3/3

LAPTEV, Yu. N.

25(2) PHASE I BOOK EXPLOITATION SOV/2779

Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Leningradskoye oblastnoye pravleniye

Gidrodinamicheskiye peredachi (Hydrodynamic Transmissions) Moscow, Mashgiz, 1959. 245 p. (Series: Its: Trudy, vyp. 52) 3,000 copies printed.

Ed.: V.P. Gur'yev, Candidate of Technical Sciences, Docent; Tech. Ed.: L.V. Shchetinina; Managing Ed. for Literature on Machine-Building Technology (Leningrad Division, Mashgiz): Ye.P. Naumov, Engineer.

PURPOSE: This book is intended for engineering and technical personnel in the field of hydraulic transmission. It may also be used as a textbook for students of higher technical schools.

COVERAGE: The book is a collection of 20 papers read at the first conference on hydrodynamic transmissions held in Leningrad from 9-11 December, 1957, at which problems of calculation, design, production and operation of hydraulic clutches and hydraulic converters widely used in industry were discussed.

1. Gur'yev, V.P. Development of Hydraulic Transmission systems and Their Application in the USSR 9
A brief account of the development of hydraulic transmission in the USSR and abroad is given and basic trends in future development are discussed.

2. Kochkarev, A.Ya. Present State of the Theory of Calculation of the Hydraulic Plant of Hydrodynamic Transmissions and Their Further Development 15

3. Gavrilenko, B.A. Some Problems in Calculating Hydrodynamic Torque Converters 41

4. Magidovich, Ye. J. Application of the Flow Energy Theory to the Investigation and Design of Hydraulic Converters and Hydrodynamic Transmissions 47

5. Laptev, Yu.N. Investigation of the Influence of Basic Geometrical Parameters of Rotors on the Characteristics of one-stage Hydraulic Converters 61

6. Kulikov, N.K. Influence of Hydraulic Converter Parameters and the Transmission Ratio on the Dynamics of Starting 83

7. Smirnov, N.V. Experience in Designing Producing, and Operating Marine Hydraulic Transmissions 101

8. Kryukov, A.P. Experience in Designing, Producing and Testing Hydraulic Converters 108

9. Kolesov, V.A. Influence of the Combined Characteristics of Hydraulic Converters and Internal Combustion Engines on Basic Indicators of the Power Plant. 115

10. Experience in Designing, Testing, and Operating Turbo-transmissions of Conduit Mechanisms Used in the Petroleum Industry 126

12. Nikolayev, R.L. Using a Turbine Converter on One-engine Cranes 139

13. Bratslavskiy, Kh. L. Choice of Parameters and Design for a Turbo-converter Working With Universal Diesel-operated Excavators 171

14. Aleksandrovskiy, D. Ya. Characteristics of Reversing Ships By Means of Hydraulic Transmissions 182

15. Morgun, N.G. Investigation of Clutches in the Hydraulic Machinery Laboratories of the Academy of Sciences, USSR 188

16. Grishanov, A.G. Hydromechanical Transmissions of Mine Diesel Cars 201

17. Gryanko, L.P., and V.P. Chasovskoy. Some Problems of Hydrodynamic Transmission Terminology 207

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12(2)

SOV/113-59-3-3/17

AUTHOR: Laptev, Yu.N.

TITLE: The Calculation of a Complex Single-Stage Hydraulic Torque Converter (K raschëtu odnostupenchatogo kompleksnogo gidrotransformatora)

PERIODICAL: Avtomobil'naya promyshlennost', 1959, Nr 3, pp 7 - 10, (USSR)

ABSTRACT: The efficiency factor of a hydraulic torque converter increases in relation to the transmission ratio from zero to some maximum value and decreases thereafter. High values of the efficiency factor are observed only in a narrow range of transmission ratios and, for increasing the latter, so-called complex hydraulic torque converters are used which consist of the actual torque converter itself and a hydraulic clutch. Figure 1 shows that this combination leads to a more favorable change of the efficiency factor within the entire range of transmission ratios. At low transmission ratios, the efficiency factor of the torque

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converter is higher than that of the hydraulic clutch, but beginning with the transmission ratio i*, the efficiency factor of the torque converter decreases rapidly, while that of the hydraulic clutch rises until the ratio i_m is reached. The reactor of a complex torque converter is connected by a free wheel mechanism with the crankcase and remains stationary during torque conversion, but moves freely when the unit works as a hydraulic clutch. The change from one function to the other is performed automatically. When designing and calculating complex torque converters, usually only the laws applying for the torque conversion are considered while factors dealing with the function of the hydraulic clutch are neglected and the rating of the unit is established experimentally. However, the hydraulic torque converter should have an adequate efficiency factor also when performing the function of a hydraulic clutch. For this reason the Stalingradskiy mekhani-

SOV/113-59-3-3/17

The Calculation of a Complex Single-Stage Hydraulic Torque Converter

cheskiy institut (Stalingrad Institute of Mechanics) investigated some problems connected with the calculation of complex hydraulic torque converters. The designing of such a torque converter is complicated and requires a compromise solution whereby some disadvantages must be taken into consideration. The author bases his calculations on conventional assumptions used for the design of hydraulic torque converters /Ref 1, 2, 3_7. He presents formulas and equations for determining the absolute speed c of the liquid flow between the rotor blades, the loss of pressure due to impact H_y occurring when the liquid enters the rotor, the coefficient of the moment of the reactor wheel λ, and formulas for determining the efficiency factors while the unit functions as a torque converter and as a hydraulic clutch. A table shows a comparison of data of American complex torque converters (Ford, Chrysler, Buick, Allison) with three Soviet versions TSh-3, TSh-4 and TSh-5. In his conclusions the author recommends

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SOV/113-59-3-3/17

The Calculation of a Complex Single-Stage Hydraulic Torque Converter

1) a transmission ratio within the limits of $0.5 < i^* < 0.8$ for the calculated performance; for reducing hydraulic losses and obtaining a sufficiently high efficiency factor at smaller values of i^*, it is necessary to reduce the energy capacity of the hydraulic torque converter which means that its dimensions must be increased; 2) a possibly low coefficient of moment for the calculated performance (at least λ^*, < 0.2). A reduction of λ^*, is connected with a decrease of the energy capacity which means larger dimensions. The proper selection of the high-speed factor is important, since it determines the external characteristic of the torque converter. Dividing the reactor wheels into two independent rims, installed on free wheel mechanisms, reduces pressure losses due to impact and increases the range of high efficiency. Finally the author

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SOV/113-59-3-3/17

The Calculation of a Complex Single-Stage Hydraulic Torque Converter

mentions briefly the determination of the optimum geometry for a complex torque converter by a graphical method. There are 3 diagrams, 9 graphs, 1 table and 6 references.

ASSOCIATION: Stalingradskiy mekhanicheskiy institut (Stalingrad Institute of Mechanics)

Card 5/5

LAPTEV, Yu.N.

Investigating the effect of basic geometric parameters of runner wheels on characteristics of single-stage hydraulic torque converters. [Izd.] LONITOMASH 52:61-82 '59. (MIRA 12:12)
(Oil hydraulic machinery)

LAPTEV, Yu. N. Cand Tech Sci -- "Study and ~~calculation~~ design of single-~~stage~~ step automobile-tractor hydrotransformers." Stalingrad, 1960 (Min of Agr RSFSR. Stalingrad Agr Inst). (KL, 1-61, 194)

LAPTEV, Yu.N., inzh.

Concerning the determination of the optimum magnitude of the blade angle in the output of the directing apparatus of a single-stage hydraulic torque converter. Izv. vys. ucheb. zav.; energ. 4 no.8:98-102 Ag '61. (MIRA 14:8)

1. Stalingradskiy mekhanicheskiy institut.
(Hydraulic machinery)

LAPTEV, Yu.N., kand. tekhn.nauk; KULIKOV, N.K., doktor tekhn. nauk,
retsenzent; IL'ICHEV, Ya.T., kand. tekhn. nauk, red.;
SMIRNOVA, G.V., tekhn. red.

[Single-stage hydrodynamic torque converters for motor vehicles and tractors] Avtotraktornye odnostupenchatye gidrodinamicheskie transformatory. Moskva, Mashgiz, 1963. 218 p. (MIRA 17:3)

USSR/Cultivated Plants - Grains M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82280

Author : Sorokina, O.N., Laptev, Ya.P.
Inst : --
Title : The Amount of Pollen in the Wheat Flowers in Wind Pollination

Orig Pub : Vestn. s.-kh. nauki, 1957, No 4, 34-40

Abstract : Experiments in the investigation of the amount pollen grains taking part in the pollination of flowers under the conditions of free wind pollination of spring and winter wheat were conducted for 4 years at the P.I. Lisitsyn Selection Station (Moscow) and at Kharkov Selection Station. The amount of pollen grains taking a direct part in the pollination of the flowers was very negligible although the saturation of the surrounding air with pollen was fairly high and the capturing surface of the stigma was fairly large. The percentage of the seed

Card 1/2

LAPTEV, Yu.P., aspirant

Resistance to rust of Bulgarian winter wheats in the Soviet Union.
Zashch. rast. ot vred. i bol. 6 no.3:18 Mr '61. (MIRA 15:6)

1. Vsesoyuznyy institut rasteniyevodstva.
(Wheat rusts)

LAPTEV, Yu.P.

Increasing the pollination capacity of castrated wheat flowers in free crossing. Agrobiologiia no.5:777 S-O'63.

(MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut rasteniyevodstva, Leningrad.

LAPTEV, Yu.P., aspirant

Role of a wax coating on wheat plants. Zashch. rast. ot vred. i bol. 8 no.1:56 Ja '63. (MIRA 16:5)

1. Vsesoyuznyy institut rasteniyevodstva.
(Wheat--Disease and pest resistance)

LAPTEV, Yu.P.

Geography of Chinese wheat. Priroda 52 no.3:102-103 '63.
(MIRA 16:4)

1. Vsesoyuznyy institut rasteniyevodstva, Leningrad.
(China—Wheat)

LAPTEV, Yu.P., starshiy nauchnyy storudnik; ASSAUL, B.D.; KOVALEV, N.V., kand. sel'skokhoz. nauk; ZAKHAROVA, T.I., mladshiy nauchnyy sotrudnik; MAMAYEVA, Kh.P.; DUBINEVICH, B.N., starshiy nauchnyy sotrudnik

Brief information. Zashch. rast. ot vred. i bol. 9 no.9:54-56 '64. (MIRA 17:11)

1. Zaveduyushchiy laboratoriyey fitopatologii Vinnitskoy oblasti (for Assaul). 2. Maykopskaya opytnaya stantsiya Vsesoyuznogo nauchno-issledovatel'skogo instituta rasteniyevodstva (for Kovalev). 3. Vsesoyuznyy institut zashchity rasteniy (for Zakharova). 4. Moskovskiy pedagogicheskiy institut imeni V.I. Lenina (for Mamayeva). 5. Mironovskaya selektsionnaya stantsiya (for Dubinevich).

LAPTEV, Yu.P.

Investigation of the geographical distribution of some morphological characteristics of cultivated wheat. Bot. zhur. 49 no.4:576-580 Ap'64. (MIRA 17:5)

1. Vsesoyuznyy institut rasteniyevodstva, Leningrad.

LAPTEV, Yu.P.

Drought resistance of durum and soft wheat in Central Asia.
Fiziol. rast. 12 no.3:545-548 My-Je '65. (MIRA 18:10)

1. Opytnaya stantsiya VNIIZbK, Orel.

DUNAYEVSKIY, D.B.; LAPTEV, Yu.P.; SOBOLEV, N.A.

Apparatus for thermal castration of farm crops. Agrobiologiia no.2:282-284 Mr-Ap '65. (MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zernobobovykh kul'tur, Orel.

GORBOV, V.F.; LAPTEV, Yu.P.

Marking agricultural machinery. Standartizatsiia 26 no.4:32-34
Ap '62. (MIRA 15:3)
(Agricultural machinery--Terminology)

LAPTEV, Yu.P.

Solanum tuberosum haploids and their future use in genetics and selection. Genetika no.5:161-169 N '65. (MIRA 19:1)

1. Nauchno-issledovatel'skiy institut kartofel'nogo khozyaystva, Moskovskaya oblast'. Submitted August 31, 1965.

LAPTEV, Y. V.

CHEREMOVSKIY, Yuriy Ivanovich; LAPTEV, Yuriy Viktorovich; SVET, Ye.B., redaktor; VYGOLOVA, M.A., tekhnicheskiy redaktor

[Motorcyclist's manual] V pomoshch' mototsiklistu. [Cheliabinsk] Cheliabinskoe knizhnoe izd-vo, 1957. 171 p. (MIRA 10:9)
(Motorcycles)

LAPTEVA, A.G.

USSR/Kinetics - Combustion. Explosions. Topochemistry. Catalysis. B-9

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18634

Author : A.I. Naumov, ~~A.G. Lapteva.~~

Title : Catalysis of Vapor-Phase Hydrolysis of Haloid Derivatives of Organic Compounds. I. Hydrolysis of 1, 2, 4-Trichlorobenzene.

Orig Pub : Zh. obshch. khimii, 1956, 26, No 6, 1647-1650

Abstract : It was found that practically only m-chlorophenol (about 80 to 90%) of all the possible reaction products is formed at the vapor-phase hydrolysis of 1, 2, 4-trichlorobenzene on a phosphate catalyst at 370°. The temperature rise to 500°, as well as a decrease of the volumetric speed result in a decrease of the m-chlorophenol yield. The total reaction speed is determined by the speed of 2.5-dichlorobenzene formation; the necessary hydrogen is produced at the expense of the conversion. The apparent energy amount of the reaction activation [illegible]

Card 1/2

LAPTEVA-A.I.

Dynamics of cholesteremia in closed cerebral trauma. A. I. Lapteva (Med. Inst., Dnepropetrovsk). *Klin. Med.* 34, No. 4, 49-51(1956).—In the majority of cases assocd. with a commotion-contusion syndrome a hypocholesteremia is observed. Often it persists for 10 days; a smaller number show a return to normal after that period. A parallelism between the gravity of the condition and the degree of hypocholesteremia was found only in 4 of 32 cases. Hypocholesteremia persists longer than the clinical manifestations. A. S. Mirkin

LAPTEVA, A.M. [Laptieva, A.M.]

Relationship between the spore composition of coals and facies conditions. Geol.zhur. 21 no.5:64-70 '61. (MIRA 14:10)

1. Trest "Lugans'kgeologiya".
(Donets Basin—Coal geology)

LAPTEVA, A.M. [Laptieva, A.M.]

Palynological characteristics of Lower Cretaceous sediments in the northern margin of the Donets Basin. Geol. zhur. 24 no.5:88-93 '64.
(MIRA 17:12)

1. Trest "Luganskgeologiya."

LAPTEVA, D.G.

16(0) PHASE I BOOK EXPLOITATION SOV/3342

Akademiya nauk SSSR. Vychislitel'nyy tsentr

Vychislitel'naya matematika (Computer Mathematics) Moscow, Izd-vo AN SSSR, 1959. 148 p. (Series: Its: Sbornik, 5) Errata slip inserted. 3,200 copies printed.

Resp. Ed.: V. A. Ditkin, Professor; Ed.: N. V. Yakovkin; Tech. Ed.: S. G. Markovich.

PURPOSE: This book is intended for applied mathematicians, scientific workers, engineers and scientists whose work involves computation.

COVERAGE: This book contains 9 articles on problems in computer mathematics. Three articles are devoted to problems of nomographs. There are individual articles on the numerical integration of first order ordinary differential equations, the approximate integration of multiple integrals, random values with arbitrary distribution, stochastic processes and the Monte Carlo method, and the finding of the original function when its transform is a proper rational fraction. References accompany each article.

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Golenko, D. I. Generation of Random Values With Arbitrary Law of Distribution 83

Golenko, D. I. Calculating the Characteristics of Certain Stochastic Processes by the Monte Carlo Method 93

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Dzhems-Levi, G. Ye. On Functions Whose Nomograms Have a Given Answer Scale 109
1. On the nomographing of relationships of the type $f_3(z) K(x, y) + \varphi_3(z) L(x, y) + \gamma_3(z) M(x, y) = 0$ 111
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Lapteva, D. G. On the Construction of a Nomogram for a System of Equations $f_2(v) = f_1(u) + f_3(w); f_2(v) = \varphi(u) + f_4(t)$ With Three Point Contacts and One Tangential Contact 133

Murav'yev, P. A. On the Problem of Finding the Original Function When the Transform Is a Proper Rational Fraction 140

LAPTEVA, D. G.

16(1) P. 8 PHASE I BOOK EXPLOITATION SOV/2445

Akademiya nauk SSSR. Vychislitel'nyy tsentr

Vychislitel'naya matematika (Computational Mathematics) Moscow, Izd-vo AN SSSR, 1959. 183 p. (Series: Its: Sbornik, 4) Errata slip inserted. 5,000 copies printed.

Resp. Ed.: V. A. Ditkin, Professor; Ed.: M. V. Yakovkin; Tech. Ed.: I. N. Guseva.

PURPOSE: This book is intended for applied mathematicians, scientists, and engineers.

COVERAGE: This book contains seven articles concerning the development of new methods of constructing nomograms of practical value in computations. The first two articles, which make up the largest part of the book, deal with various aspects of practical nomography. Much attention is paid to the nomograms with movable scales and to the nomographing of canonical forms. Projective transformations of alignment nomograms, design of nomograms on high speed computers, nomograms of polynomials, elements of the theory of nets and their application to nomography are also discussed

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in the book. References accompany each article.

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LAPTEVA, D.G.

Projective transformation of nomograms from aligned points with a rectangular corresponding scale. Vych. mat. no.4:150-158 '59.
(MIRA 12:9)

(Nomography (Mathematics))

LAPTEVA, D.G.

Construction of a nomogram for the system of equations $f_2(v) = f_1(u) + f_3(w);\ f_2(v) = \varphi_1(u) + f_4(t)$ with three point-contacts and one tangency contact. Vych. mat. no.5: 133-140 '59. (MIRA 13:3)

(Nomography (Mathematics))

LAPTEVA, Dagna Germanovna; KHOVANSKIY, G.S., otv.red.; POPOVA, N.S., tekhn.red.

[Nomograms for hydraulic calculation of chutes and canals] Nomogrammy dlia gidravlicheskogo rascheta loktov i kanav. Moskva, Vychislitel'nyi tsentr Akad.nauk SSSR, 1960. 13 p. 38 diagrs. (MIRA 13:11)

(Nomography (Mathematics)) (Canals)

BORISOV, S.N.; LAPTEVA, D.G.; KHOVANSKIY, G.S.

[Collection of nomographs for calculating free surface curves in channels of a trapezoidal cross section] Sbornik nomogramm dlia rascheta krivykh svobodnoi poverkhnosti v kanalakh trapetseidal'nogo profilia. Moskva, Vychislitel'nyi tsentr AN SSSR, 1961. ——— ——— ——— Supplement. 30 l. (MIRA 14:8)
(Hydraulic structures) (Nomography (Mathematics))

BORISOV, S.N.; LAPTEVA, D.G.; KHOVANSKIY, G.S.; KORKINA, A.I., tekhn. red.

[Collection of nomograms for the calculation of free surface curves in cannals of a trapezoid profile] Sbornik nomogramm dlia rascheta krivykh svobodnoi poverkhnosti v kanalakh trapetseidal'nogo profilia. Moskva, Vychislitel'nyi tsentr AN SSSR, 1961. 13 p. [Nomograms] Nomogrammy. (MIRA 14:11)

(Hydraulics—Tables, calculations, etc.)

LAPTEVA, D.G.

PHASE I BOOK EXPLOITATION SOV/6352

Akademiya nauk SSSR. Vychislitel'nyy tsentr

Nomograficheskiy sbornik (Collected Papers on Nomography, no. 1.) Moscow, 1962. 248 p. 1800 copies printed.

Resp. Ed.: G. S. Khovanskiy, Candidate of Technical Sciences; I. A. Orlova; Tech. Ed.: A. I. Korkina.

PURPOSE: This collection of papers is intended for those engaged in research on and design of nomographs.

COVERAGE: This collection contains 27 papers concerning various aspects of the theory, construction, and use of nomograms for the solution of algebraic, functional, transcendental, and differential equations. No personalities are mentioned. There are 122 references: 102 Soviet (1 of which is a translation from the English), 8 German, 5 French, 2 English, 2 Spanish, 2 Rumanian, and 1 Czech.

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This paper is based on the author's report at the Conference on Computational Mathematics in Moscow, November 1959.

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LAPTEVA, D.G. (Moskva)

Construction of an approximated nomogram by replacing the product of functions by their sum. Nom. sbor. no.1:51-56 '62. (MIRA 16:5)
(Nomography (Mathematics))

LAPTEVA, D.G. (Moskva)

Construction of a nomogram with superposed scales. Nom. sbor. no.1:57-59 '62. (MIRA 16:5)

(Nomography (Mathematics))

DENISYUK, I.N. (Moskva); LAPTEVA, D.G. (Moskva); KHOVANSKIY, G.S. (Moskva)

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LAPTEVA, D.G. (Moskva)

Nomographic solution of a problem in ground water engineering.
Nom. sbor. no.2:29-35 '64. (MIRA 18:3)

BORISOV, S.N. (Moskva); LAPTEVA, D.G. (Moskva)

Nomographic method of determining zero approximations in solving a system of transcendental equations. Nom. sbor. no.3:27-35 '65.

(MIRA 18:10)

RYZHOV, Yu.A.; LAPTEVA, E.P.

Fluctuations of the parameters of a triharmonic wave propagated through a locally homogenous medium. Izv. vys. ucheb. zav.; radiofiz. 3 no.976-982 '60. (MIRA 14:4)

1. Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete.
(Radio waves)

S/141/60/003/006/007/025
E133/E361

9.9000 (also 1036, 1103)

AUTHORS: Ryzhov, Yu.A. and Lapteva, E.P.

TITLE: Fluctuations in the Parameters of a Tri-harmonic Wave Propagated Through a Locally Homogeneous Medium

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1960, Vol. 3, No. 6, pp. 976 - 982

TEXT: Zverev (Ref. 1) considers fluctuations in the value of a phase-invariant parameter during the propagation of a tri-harmonic wave through a statistically homogeneous medium. A better model for a turbulent atmosphere is a locally homogeneous field, as suggested in this paper. A tri-harmonic wave consists of three plane harmonic waves with frequencies ω_o, ω_1 and ω_2 which are propagated in the same direction and obey the relation $\omega_o - \omega_1 = \omega_2 - \omega_o$. The phase invariant considered is $\Theta = \varphi_o - 1/2(\varphi_1 + \varphi_2)$ where the φ's are the phase components of the waves. Θ is invariable in space and time in a homogeneous non-dispersive medium, so

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changes in Θ provide an indication of the properties of the medium. The paper is devoted to considering fluctuations in Θ in a turbulent medium and in a plane $x = L$ perpendicular to the direction of wave propagation. Fluctuations in Θ (i.e. $\overline{\Delta\Theta^2}$) depend on $\overline{\Delta\varphi_1\Delta\varphi_2}$. The spectrum of this latter function (F_Θ) is given by:

$$F_{12}(\varkappa, 0) = \pi k_0^2 L \left\{ \frac{\sin\left[(\varkappa^2 L/2k_0)(\Delta k/k_0)\right]}{(\varkappa^2 L/2k_0)(\Delta k/k_0)} + \frac{\sin(\varkappa^2 L/k_0)}{\varkappa^2 L/k_0} \right\} \Phi_n(\varkappa, 0), \quad (2) \qquad (2)$$

assuming the wavelength (λ) to be much less than the scale of internal turbulence (l_0) . It is assumed that the turbulence follows a Kolmogoroff law. It is pointed out that these are three cases of interest:

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E133/E361

Fluctuations in the ....

1) $L_o \gg \sqrt{L \Delta \lambda} \gg \ell_o$ (where L_o is the scale of external turbulence). F_{Θ} has a maximum near $2\pi/\sqrt{L\Delta\lambda}$;
2) $\sqrt{L\Delta\lambda} \gg L_o$. This corresponds to an inhomogeneous and anisotropic atmosphere;
3) $\sqrt{L\Delta\lambda} \gg \ell_o$. The effects here are small and depend on the scale of internal turbulence.

The author considers case (3) and obtains:

$$\overline{\Theta^2} = 0.19\, k_0^{7/6} L^{11/6} (\Delta k/k_o)^{5/6} C_n^2 \tag{8}$$

for Θ^2. He then obtains:

$$\overline{\Theta^2} = 36.4 L^5 k_o^{-2} \left(\frac{\Delta k}{k_o}\right)^4 \ell_o^{-19/3} C_n^2 \tag{9}$$

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for $\sqrt{L\Delta\lambda} \ll \ell_o$. Next, the normalised correlation coefficient for the phase invariant (b_{Θ}) is derived and plotted in Fig. 1. When $\sqrt{L\Delta\lambda} \ll \ell_o$, $\dot{\Theta}^2$ depends only on position, wavelength and the relative frequencies of the tri-harmonic wave. This is also true for $\sqrt{L\Delta\lambda} \gg \ell_o$ in a homogeneous medium. It is untrue for the latter case in a locally homogeneous medium and it is also untrue for intermediate values of $\sqrt{L\Delta\lambda}$. The author next considers fluctuations in the amplitude of the wave ($\delta A/A_o$) and derives two values:

$$\overline{\left(\frac{\delta A}{A_0}\right)^2} = 0{,}35\, C_n^2\, k_0^{7/6}\, L^{11/6} \left(\frac{\Delta k}{k_0}\right)^{5/6} \simeq 2\, \overline{\Theta^2}. \qquad (17)$$

(17)

for $\sqrt{L\Delta\lambda} \gg \ell_o$ and:

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$$\overline{\left(\frac{\delta A}{A_0}\right)^2} = 1,7\, C_n^2 L^3 \left(\frac{\Delta k}{k_0}\right)^2 l_0^{-7/3} . \qquad (18)$$

(18)

for $\sqrt{L\Delta\lambda} \ll l_0$. The experimental uses of tri-harmonic waves are that from the fluctuations in φ and $\delta A/A_0$, the dispersive properties of an inhomogeneous medium can be characterised. Acknowledgments are expressed to M.M. Kobrin for advice. There are 1 figure and 4 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Scientific Research Institute of Radiophysics at Gor'kiy University)

SUBMITTED: July 14, 1960

Card 5/6

SAMSONOV, G.V.; YASINSKAYA, G.A.; LAPTEVA, E.P.

Refractory products made from cerium dioxide. Ogneupory 26 no.1: 41-42 '61. (MIRA 14:2)

1. Institut metallokeramiki i spetsial'nykh splavov AN USSR.
(Refractory materials) (Cerium dioxide)

88000

S/131/61/000/001/003/004
B021/B058

15.2210 1155, 1136, 1273

AUTHORS: Samsonov, G. V., Yasinskaya, G. A., and Lapteva, E. P.

TITLE: Refractory Cerium Dioxide Products

PERIODICAL: Ogneupory, 1961, No. 1, pp. 41-42

TEXT: Experiments for the manufacture of cerium-dioxide products are described in this paper, and some of their properties are investigated. Powder and starch paste were dosed according to the formula by A. N. Novikov. The maximum firing temperature was 1400°C. The results of testing crucibles from CeO_2 for the effects of melts of various metals are tabulated. The absence of the interaction of crucibles from CeO_2 with aluminum melt was confirmed by the Laboratory of Pure Metals and Semiconductors of the Krasnoyarskiy institut tsvetnykh metallov (Krasnoyarsk Institute of Nonferrous Metals). These crucibles also proved to be stable against melts of semiconductor alloys of the type $A^{II}B^{VI}$. There are 2 figures, 1 table, and 3 Soviet references.

Card 1/2

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Refractory Cerium Dioxide Products

S/131/61/000/001/003/004
B021/B058

ASSOCIATION: Institut metallokeramiki i spetsial'nykh splavov AN USSR (Institute of Powder Metallurgy and Special Alloys AS UkrSSR)

Card 2/2

SUBJECT	USSR / PHYSICS	CARD 1 / 2	PA - 1515
AUTHOR	LAPTEVA, F.S., ERSLER, B.V.		
TITLE	The Atomization of Metals by Fission Fragments.		
PERIODICAL	Atomnaja Energija, 1, fasc. 4, 63-66 (1956) Issued: 19.10.1956		

By measuring the number of atoms evaporated on the occasion of the emission of a fission fragment from a metal surface by the same surface valuable data concerning the heated zone along the traces of the fission fragments are obtained.

The present work determines these numbers for U^{233} and Pu^{239}.

Experimental part: In an aluminium can a 2 x 3 mm plate of the metal under investigation, and above it a metal screen was mounted. The aluminium can was enclosed in a quartz ampule with a vacuum of about 10^{-4} mm Torr. When it was irradiated with neutrons, part of the fission fragments formed in the plate left the metal and on this occasion theyatomized a certain part of the metal.

The evaporated U^{233}- or Pu^{239}-atoms were partly deposited on the screen and their number could be determined by measuring the α-activity of the screen. From the number of fragments emitted from the metal surface in the course of irradiation and from the total number of evaporated atoms the number of atoms evaporated by one fragment was determined. Tests were carried out with metals with oxidized and non-oxidized surfaces. The average number of atoms carried away by one U^{233} fragment is 24 in the case of oxidized surfaces, but in the case on non-oxidized surfaces it is 1200. In the case of Pu^{239} with a purified surface an

Atomnaja Energija, 1, fasc. 4, 63-66 (1956) CARD 2 / 2 PA - 1515

average of 3500 atoms is carried away by one fragment. The evaporation observed on the occasion of these tests is apparently not due to the macroscopic heating of the entire metal sample resulting from fission reactions. Furthermore, the evaporation of plutonium caused by the emission of α-particles from a plutonium plate was investigated. The number of atoms knocked out per α-particle was computed from the α-activity of the screen and from the computed quantity of α-particles emitted from the metal surface during the test. It amounts to 0,02.

Discussion of results: The data found on this occasion, which are of a certain interest, are suited for the estimation of some parameters of the heated zones in the metals, particularly of the diameter of that zone in which the temperature, after emission of the fragment, is increased up to a value that warrants evaporation. For the number of uranium atoms in the heated zone (its length amounts to $14,6.10^{-4}$ cm) the value $5,6.10^{6}$ is found. The difference in results found on the occasion of the evaporation of uranium and of plutonium is apparently due to the low degree of thermal evaporation of Pu and to its low melting temperature. Also other metals should be examined.

INSTITUTION:

LAPTeVA, E.S.

CZECHOSLOVAKIA/Solid State Physics - Phase Transitions in Solids E-6

Abs Jour : Ref Zhur - Fizika, No 4, 1958, No 8308

Author : Lapteva, E.S., Ersler, B.V.
Inst : Not Given
Title : Spattering of Metals by Fission Fragments

Orig Pub : Jaderna energie, 1957, 3, No 5, 156-158

Abstract : The article was published in the Journal "Atommaya Energiya" /Atomic Energy/, 1956, No 4, (Referat Zhur Fizika, 1957, No 7, 17329).

Card : 1/1

76-32-4-22/43

AUTHORS: Kats, M. Ya., Lapteva, F. S.

TITLE: Isotopic Exchange Between Water and Carbon Dioxide of Oxygen (Izotopnyy obmen kisloroda mezhdu vodoy i dvuokis'yu ugleroda)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol. 32, Nr 4, pp. 864-868 (USSR)

ABSTRACT: In the elaboration of the isotopic analysis the experiments were carried out at increased pressure of gaseous carbon dioxide as well as at different temperatures. As reaction vessel served a balloon flask with a volume of 2 liters which rotated in a thermostat. The water was mixed with the isotopes O^{17} and O^{18}, as well as with deuterium, and after the adjustment of the transition equilibrium of the isotopes into carbon dioxide the change of water density was calculated according to an equation. A diagram of the results obtainedcalculated according to Yuri (Reference 4) as well as of isotopic equilibrium is given. It was found that the production of the equilibrium in an interval of from 0.5 - 60 atmospheres ex-

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Isotopic Exchange Between Water and Carbon Dioxide of Oxygen 76-32-4-22/43

cess pressure does not depend on the pressure of carbon dioxide and that the exchange of oxygen isotopes is a reaction of first order. Measurements of the temperature dependence were also carried out as well as of the deuterium concentration; in this it was found that the velocity of the exchange reaction in the system D_2O - CO_2 is almost half that of H_2O - CO_2. Two reaction schemes for solution at $pH<8$ as well as $pH>10$ are given; in the first case the influence of the diffusion in the given biphase system is pointed out.
There are 3 figures and 6 references, 3 of which are Soviet.

SUBMITTED: December 29, 1956

AVAILABLE: Library of Congress

1. Oxygen isotopes--Exchange reactions 2. Deuterium oxide --Exchange reations 3. Water--Exchange reactions 4. Exchange reactions--Velocity 5. Carbon dioxide--Applications

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5(2) SOV/75-14-2-15/27

AUTHORS: Kats, M. Ya., Lapteva, F. S.

TITLE: Isotopic Analysis of Water (Izotopnyy analiz vody)

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 2, pp 227-233 (USSR)

ABSTRACT: The method of isotopic analysis of water devised by the authors is based upon the isotopic exchange between water and carbon dioxide and on a measurement of density using a differential pycnometric method. The isotopic reaction between water and CO_2 at 50-100 atmospheres absolute pressure and 90° increases the possibility of determining the concentration of heavy oxygen isotopes in water since in the hitherto known methods (Refs 2, 3) this reaction is performed only at atmospheric pressure and room temperature. Due to the isotopic exchange of water enriched with ^{17}O and ^{18}O with CO_2 the density of water is reduced. From this reduction of density the concentration of heavy oxygen isotopes in water may be determined. In the variant of the differential pycnometric method of determining the density, which was devised by the authors,

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the effect of temperature fluctuations of the thermostat is considerably reduced. This fact considerably simplifies the measurements in mass analyses and reduces the error in the pycnometric method. The water of the Moscow water supply system served as comparative water. In the computation of the isotopic composition of water the following equation holds:

$$\Delta \varrho/\varrho_o = \Delta \varrho_D/\varrho_o + \Delta \varrho_k/\varrho_o \quad \left(\Delta \varrho/\varrho_o = \frac{\varrho-\varrho_o}{\varrho_o} ;\ \Delta \varrho_D/\varrho_o = \frac{\varrho_D-\varrho_o}{\varrho_o} ;\right.$$

$$\Delta \varrho_k/\varrho_o = \frac{\varrho_k-\varrho_o}{\varrho_o} ;$$

ϱ - density of the water to be investigated; ϱ_o - density of the comparative water; ϱ_D - density of the water to be investigated in which only the deuterium concentration is higher than in the comparative water; ϱ_k - density of the water to be investigated in which only the concentration of heavy oxygen isotopes is higher than in the comparative water). $\Delta \varrho_D/\varrho_o$ and $\Delta \varrho_k/\varrho_o$ were determined experimentally. Using the above equation the deuterium concentration and the effective concentration of heavy oxygen isotopes (approximately $C_{^{18}O} + 0.5\ C_{^{17}O}$) may be determined from these quantities.

The method devised permits the determination of deuterium with an accuracy of up to ±0.001% at very low concentrations and up to ±0.01% at very high concentrations (~99%) of deuterium if the concentration of the heavy oxygen isotopes is known. If the deuterium- as well as the heavy oxygen isotope concentration must be determined the error of determination is almost twice as high. The apparatus used for the determination are shown in 5 illustrations and described in detail. Also the purification of water, the calibration of the pycnometer, and the process of the entire determination are described in detail. The corrections of the determination of $\Delta\varrho/\varrho_o$ at 25° are summarized in a table; a further table contains the coefficients of the computation of the deuterium content at temperatures of 20-30°. The authors thank A. I. Alikhanov and M. I. Kornfel'd for their interest in this work and R. L. Serdyuk for valuable advice. There are 7 figures, 2 tables, and 10 references, 9 of which are Soviet.

SUBMITTED: February 13, 1958

L 35076-65 EPF(c)/EPR/EWP(j)/EWA(c)/EWT(m)/T Pc-4/Pr-4/Ps-4 RPL RM/WW

ACCESSION NR: AR5006365 S/0081/64/000/024/S026/S026

SOURCE: Ref. zh. Khimiya, Abs. 24S149

3 4

AUTHOR: Fedotova, O. Ya.; Shtil'man, M. I.; Lapteva, I. A.

f + 1

TITLE: Chemical transformations of polyureas

CITED SOURCE: Sb. Vysokomolekul. soyedineniya. Khim. svoystva i modifik. polimerov. M., Nauka, 1964, 80-85

TOPIC TAGS: polymer, polyurea, nitration, catalyst, polyurea plastic

TRANSLATION: In processing polyureas containing an aromatic nucleus in the chain, the introduction of a nitro group into them by nitrating a mixture in the cold state proceeds with a yield corresponding to the quantity of HNO_3 introduced into the reaction where the process is accompanied by the destruction of the polymeric chain of the polyurea, obtained from the primary diamine of 4,4'-diamine-3,3'-dimethyl-diphenylmethane and hexamethylenediisocyanate. This process is apparently accompanied by oxidation which is indicated by the extremely low content of N, C, and H in the nitrated product in comparison with the calculated content. During the nitration of polyurea from the secondary amine of N,N'-diethyl-4,4'diamine-3,3'

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L 35076-65

ACCESSION NR: AR5006365

dimethyldiphenylmethane a polymer was obtained with the same specific viscosity as in the initial sample. The introduction of a nitro group into the polyurea increases the melting and softening temperatures and reduces the solubility of the polymers. Attempts to reduce the polynitroureas with Na-sulfide were unsuccessful in view of the intensive hydrolysis of the unsubstituted polyureas and low yields based on the amino group in the case of N-substituted polyurea. During reduction with H_2 on a Raney nickel catalyst an almost quantitative yield was obtained. The reduced polymers also possess higher melting and softening points and poorer solubility in comparison with the initial sample. The reduced polyureas react with diisocyanates forming cross-linked polymers. /Authors' abstract

SUB CODE: OC ENCL: 00

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L 27875-65 EWT(m)/EPF(c)/EPR/EWP(j)/T/EWA(c) Pc-4/Pr-4/Ps-4 RPL WW/GS/RM

ACCESSION NR: AT4049844 S/0000/64/000/000/0080/0085

AUTHOR: Fedotova, O. Ya.; Shtil'man, M. I.; Lapteva, I. A.

35
33
B+1

TITLE: Chemical reactions of polyureas

SOURCE: Khimicheskiye svoystva modifikatsiya polimerov (Chemical properties and the modification of polymers); sbornik statey. Moscow, Izd-vo Nauka, 1964, 80-85

TOPIC TAGS: polyurea, nitration, reduction, hexamethylene diisocyanate, infrared absorption spectrum, nickel catalyst, primary diamine, secondary diamine, diphenylmethane derivative

ABSTRACT: In order to clarify the chemical reactions of polyureas, the nitration and subsequent reduction of some arylaliphatic polyureas of relatively low molecular weight were studied. Polyureas prepared by the reaction of 4.4'-diamino-3,3'-dimethyldiphenyl methane and hexamethylene diisocyanate, with a molecular weight of about 5000 (by viscosity), and the reaction of N,N'-diethyl-4-4'-diamino-3,3'-dimethyldiphenyl methane and hexamethylene diisocyanate, with a molecular weight of 2300, were tested. The purified, yellowish powder, obtained by treating the polymer from the primary diamine with nitric acid, showed that it is not only nitrated but also degraded. This is shown by the decrease in the specific viscosity of polyureas after nitration. Elemental analysis showed a considerable decrease

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in nitrogen, carbon and hydrogen content. The nitration of polyurea from secondary diamine yielded a polymer, the specific viscosity of which did not differ from that of the initial polymer. This showed the absence of degradation. The introduction of the nitro group into polyurea was confirmed by the peak in absorption in the region of the nitro group (1560 cm^{-1}). The presence of a nitro group in the aromatic rings of the polymer caused the properties of the polymer to change considerably: the melting point in the sealed capillary increased, solubility decreased, and the softening point shifted toward a higher temperature than in the initial polymer. This was a result of the increase in intermolecular attraction due to introduction of the strongly polar nitro group into the polymer. Nitration by nitric acid in the theoretical amount (1 mole HNO_3 per aromatic ring of the polymer) leads to nitro compounds with a nitro group content close to the theoretical. The reduction of the nitropolyureas obtained was accomplished with sodium sulfide (5-7%) and catalytically. The increased alkalinity with sodium sulfide diminished the yield from the primary diamine. Under the same conditions for polyurea obtained from the secondary diamine, no decomposition was observed and the yield corresponded to the initial polymer. No decrease in specific viscosity was observed either. A more complete reduction was obtained with a nickel catalyst and hydrogen in methanol at 40C. It was shown by analysis that, on the average, one amino group became attached to one aromatic ring of the polymer chain. This agrees well with the amount of nitric acid used for nitration and

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reduction. Reduced and nitrated products were less soluble and had a higher melting point than the initial polyurea, due probably to the greater density of hydrogen bonding between the polymer chains. In their properties, the reduction products were close to the nitrated polyureas. Turbidimetric curves obtained for initial and catalytically reduced polyureas had the same character; nitration and subsequent reduction did not change the molecular weight distribution of the polymer. The thermomechanical curves of crosslinked polyureas show great reversible deformation, indicating the presence of regions in a highly elastic state. Orig. art. has: 3 figures and 5 tables.

ASSOCIATION: Khimiko-tekhnologicheskiy institut im.D.I.Mendeleyeva (Chemical engineering institute)

SUBMITTED: 11Jun62 ENCL: 00 SUB CODE: OC,GC

NO REF SOV: 001 OTHER: 000

Card 3/3

LAPTEVA, I. D., D'YACHENKO, V. P., KARAVAYEVA, A. (Editors)

Collective Farms

"Problems of collective farm building in the U. S. S. R." Reviewed by P. Golubkov.
Vop. ekon, no. 4, Apr. 1952

Monthly List of Russian Accessions. Library Of Congress. August 1952. UNCLASSIFIED

LAPTEVA, K.A.

Mechanism of oxidation of synthetic rubbers. A. S. Kuz'minskii, T. G. Degteva, and K. A. Lapteva (M.V. Lomonosov Inst. Fine Chem. Technol., Moscow). *Issledovaniya v Oblasti Vysokomolekul. Soedinenii, Doklady 6-oi Konf. Vysokomolekul. Soedineniyam, Akad. Nauk S.S.S.R.* 1949, 117-28.—The oxidation of Na butadiene rubber films was studied at various temps., and the kinetics of evolution of volatile products and absorption of O were detd. The effect of Bz_2O_2, content of double bonds in the main chains and the side chains, accumulation of peroxides and org. acids, and decline of unsatn. were examd. The results, given graphically, indicate that the rate of oxidation rises with time because of accumulation of relatively stable peroxides; Bz_2O_2 reduces the induction period and greatly accelerates the oxidation rate. Polymerization accompanies the oxidative process. If the oxidation process has a temp. coeff. of 1.8, then polymerization below 100° occurs very slowly, but at temps. near 100°, the rate of polymerization rises sharply. Oxidation proceeds by interaction of an aldehydic radical with O, while polymerization proceeds by reaction of this radical with a double bond. Both reactions have activation energies of about 5-6 cal./mole. The initiation of the primary chains takes place on contact of O directly with the double bonds; the secondary chains are initiated at the expense of energy liberated in decompn. of the peroxides. Both are developed through intermediates of radical type. Chain rupture takes place through recombination and oxidation of the aldehyde radicals. Oxidation occurs mainly at the double bonds of the main chains, while polymerization occurs largely in the side chains. Schemes of the probable reaction courses are supplied. G. M. K.

Submitted 1948

LAPTEVA, K. A.

Apr 49

USSR/Chemistry - Butadiene
Chemistry - Oxidation

"Studies of the Mechanism Whereby Na-Butadiene Polymers are Oxidized," A. S. Kuz'minskiy, T. G. Degteva, K. A. Lapteva, Moscow Inst of Fine Chem Technol imeni M. V. Lomonosov, [illegible]

"Zhur Prik Khim" Vol XXII, No. 4

Shows that oxygen taking part in all stages of the reaction is contained chiefly in peroxides, acids, and ethers. Studies oxidation of polymers and ethers. Studies oxidation of polymers and accumulation of intermediate and end products for different temperatures. Also diagrams concurrent oxidation and polymerization which are expanded, generally into primary-chain and secondary-chain double bonds, respectively. Submitted May 10, 1948.

60/49T26

LAPTEVA, K.A.

USSR / Cultivated Plants. Cereals. M

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 34662

Author : Lapteva, K. A.
Inst : Institute for Agriculture, Stalingrad.
Title : Certain Procedures of Technical Agronomy Methods in Corn Raised in Caved-in Areas of Bottom Land.

Orig Pub : Sb. nauch. rabot stud. Stalingr. s. kh. in-ta, 1956, vyp 2, 12-15.

Abstract : No abstract given

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LAPTEVA, K.A.

USSR/Chemistry - Physical chemistry

Card 1/1 Pub. 147 - 8/35

Authors : Lapteva, K. A.; Borisova, T. I.; and Slin'ko, M. G.

Title : Hydrogen adsorption on Pt-Au alloys

Periodical : Zhur. fiz. khim. 30/1, 61-68, Jan 1956

Abstract : The method of measuring charge curves was employed in determining the hydrogen adsorption on Pt, Au and Pt-Au alloys at room temperature. It was found that the addition of about 10% of Au to the Pt only very slightly affects the hydrogen adsorption. The adsorption drops sharply and reaches zero when the alloy contains 40.33% Pt and 59.63% Au. The effect of preliminary treatment of Pt surfaces on the H adsorption was investigated. A platinum, treated by a standard method prior to electrochemical measurements, was found to be coated with oxygen which could be retained in the cathode zone. It was observed that the amount of Pt adsorbed hydrogen decreases in the presence of adsorbed oxygen. Thirteen references: 10 USSR, Germ. and 1 Eng. (1907-1954). Tables; graphs.

Institution : Physiochemical Inst. im. L. Ya. Karpov, Moscow

Submitted : April 29, 1955

Lapteva, K. Ya

KARPOV, S.P.; POPOV, V.M.; SHIPOVA, A.A.; YAV'YA, A.R.; LAPTEVA, K.Ya.

Materials on eradicating an endemic center of tick-borne encephalitis.
Vop.virus. 1 no.6:55-58 N-D '56 (MIRA 11:3)
(ENCEPHALITIS, EPIDEMIC, prev. and control
in Russia, extermination of ticks in newly acquired areas)

LAPTEVA, K. YA., KARPOV, S. P.

"Epidemiological peculiarities of the Tomsk nidus of tick encephalitis and the effectiveness of measures of its prevention."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

LAPTEVA, L.; SHCHUKINA, A.I., dotsent, nauchnyy rukovoditel'

Physiological difference in the quality of the caryopses in the corn ear. Uch.zap.Kuib.gos.ped.inst. no.37:57-59 '62.
(MIRA 16:1)

(Corn (Maize))

TREPOV, A.P.; RON', F.N.; LEYRIKH, V.E., kand.tekhn.nauk., red.; TRUBINO, S.M., red.; LAPTEVA, L.M., red.; DEMIDOV, Ya.F., tekhn.red.

[Making large silicate blocks with slotlike openings] Izgotovlenie krupnykh silikatnykh blokov so shchelevidnymi pustotami. Moskva, Otdel nauchno-tekhn.informatsii, 1957. 45 p. (MIRA 12:1)
(Building blocks)

LAPTEVA, M.F.

137-58-5-9130

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 54 (USSR)

AUTHORS: Lapteva, M. F., Mil'kov, S. P.

TITLE: Increasing the Productivity of Electrosmelting Arc Furnaces (O povyshenii proizvoditel'nosti dugovykh elektroplavil'nykh pechey)

PERIODICAL: Tr. Nauchn. stud. o-va. Gor'kovsk. politekhnich. in-t, 1957, Nr 1, pp 64-68

ABSTRACT: A presentation of results of an investigation of the operation of two 10-t electric furnaces employed at the Gor'kiy automobile plant. The furnaces operate with transformers rated at 1950 kva and 2250 kva and are primarily employed for superheating (by 170°C on average) of liquid pig iron from cupola furnaces. Optimal electrical control schedules for the furnaces were calculated with the aid of a universal diagram for an electric-arc furnace installation. The maximum useful power of the arcs of the two furnaces amounts to 1767 kw and 1885 kw, respectively; the optimal effective power is approximately 1500 kw and 1690 kw. It is calculated that by employing operational control schedules as recommended by the author the productivity of the

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137-58-5-9130

Increasing the Productivity of Electrosmelting Arc Furnaces

furnaces may be increased by approximately 24%, while the specific consumption of electric energy may be reduced by approximately 30%.

V. T.

1. Iron--Production 2. Electric arc furnaces--Performance

Card 2/2